

AMENDMENT TO THE CLAIMS

1. (Currently Amended) A method, comprising:
receiving a data packet;
determining if the data packet is ~~a next expected data packet~~~~received out of order~~; and
~~determining if packet reordering occurred prior to receiving the data packet~~; and
delaying transmission of an acknowledgement indicating that a data packet is missing in
response to determining that the data packet is ~~received out of order~~~~not the next~~
~~expected data packet~~ and in response to determining that the packet reordering
occurred.
2. (Currently Amended) The method of claim 1, wherein delaying comprises:
determining that the acknowledgement should be transmitted if the data packet is received
out of order; and
waiting a preselected amount of time in response to determining that the acknowledgment
should be transmitted.
3. (Currently Amended) The method of claim 2, further comprising:
determining if the missing data packet is received within the preselected amount of time; and
transmitting the acknowledgment in response to determining that the missing data packet is
not received within the preselected amount of time.

4. (Currently Amended) The method of claim 1, wherein the data packet has an associated sequence number, and wherein ~~determining if the received data packet is the next expected data packet~~~~determining that the received data packet is received out of order~~ comprises:

determining a sequence number of ~~a~~the next expected data packet; and

determining if the sequence number of the received data packet is ~~greater~~not equal to than the sequence number of the next expected data packet.

5. Cancelled.

6. (Currently Amended) The method of claim ~~5~~1, wherein determining if the packet reordering occurred prior to receiving the data packet comprises:

detecting a missing data packet among one or more data packets that are received prior to receiving the data packet;

transmitting an acknowledgement indicating that the missing data packet has not been received;

receiving the missing data packet, wherein the missing data packet has an associated sequence number;

storing the received sequence number associated with the received data packet that was previously missing;

receiving one or more subsequent data packets having an associated sequence number; and

comparing the stored sequence number to the sequence number associated with the one or more subsequently received data packets to determine if packet reordering occurred.

7. (Original) The method of claim 1, wherein receiving the data packet comprises receiving the data packet over a network using at least the Transmission Control Protocol (TCP), and wherein delaying the transmission comprises delaying the transmission of a duplicate ACK.

8. (Currently Amended) A Computer-readable medium encoded with computer executable instructions thereon ~~An article comprising one or more machine-readable storage media containing instructions~~ that when executed enable a processor to:

receive a first data packet;

determine that a second data packet is missing based on the received first data packet; and

delay transmission of a missing data packet indication in response to determining that the second data packet is missing.

9. (Currently Amended) The ~~article~~medium of claim 8, wherein the instructions when executed enable the processor to:

determine that the indication should be transmitted if the data packet is received out of order;

and

wait a preselected amount of time in response to determining that the indication should be transmitted.

10. (Currently Amended) The medium ~~article~~ of claim 9, wherein the instructions when executed enable the processor to:

determine if the missing data packet is received within the preselected amount of time; and

transmit the indication in response to determining that the missing data packet is not received within the preselected amount of time.

11. (Currently Amended) The ~~medium article~~ of claim 8, wherein the data packet has an associated sequence number, and wherein the instructions when executed enable the processor to:

determine a sequence number of a next expected data packet; and

determine if the sequence number of the received data packet is greater than the sequence number of the next expected data packet.

12. Cancelled.

13. (Currently Amended) The article of claim ~~128~~, wherein the instructions when executed enable the processor to:

detect a missing data packet among one or more data packets that are received prior to receiving the data packet;

transmit a missing data packet indication;

receive the missing data packet, wherein the missing data packet has an associated sequence number;

store the received sequence number associated with the received data packet that was previously missing;

receive one or more subsequent data packets having an associated sequence number; and

compare the stored sequence number to the sequence number associated with the one or more subsequently received data packets to determine if packet reordering occurred.

14. (Currently Amended) An apparatus, comprising:

an interface; and

a control unit communicatively coupled to the interface, the control unit adapted to:

determine an occurrence of packet reordering;

receive a first data packet over the interface;

determine that a data packet is missing based at least on the received first data packet;

and

delay transmission of a missing data packet indication in response to determining that

packet reordering has occurred and in response to determining ~~that the second~~

missing data packet is missing.

15. (Original) The apparatus of claim 14, wherein the interface is a network interface,
and wherein the control unit is adapted to:

determine that the indication should be transmitted if the data packet is received out of order;

and

wait a preselected amount of time in response to determining that the indication should be

transmitted.

16. (Original) The apparatus of claim 15, wherein the control unit is adapted to

determine if the missing data packet is received within the preselected amount of time; and

transmit the indication in response to determining that the missing data packet is not received

within the preselected amount of time.

17. (Original) The apparatus of claim 15, wherein the data packet has an associated sequence number, wherein the control unit is adapted to:

determine a sequence number of a next expected data packet; and

determine if the sequence number of the received data packet is greater than the sequence number of the next expected data packet.

18. (Currently Amended) The apparatus of claim 15, wherein the control unit is ~~further~~ adapted to:

detect a missing data packet among one or more data packets that are received prior to receiving the data packet;

transmit a missing data packet indication;

receive the missing data packet, wherein the missing data packet has an associated sequence number;

store the received sequence number associated with the received data packet that was previously missing;

receive one or more subsequent data packets having an associated sequence number; and

compare the stored sequence number to the sequence number associated with the one or more subsequently received data packets to determine if packet reordering occurred.

19. (Original) The apparatus of claim 15, wherein the interface is a network card capable of receiving data packets over a network employing Transmission Control Protocol, and wherein the control unit is adapted to wait the preselected amount of time based on a timer employed by

Transmission Control Protocol in transmitting acknowledgements for successfully received data packets.

20. (Original) The apparatus of claim 15, wherein the control unit is adapted to wait the preselected amount of time comprises the control unit adapted to invoke a timer function of an operating system executing on the apparatus and adapted to receive an indication from the operating system upon expiration of the preselected amount of time.